

as is contained in the . . . claim,” citing Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). For the reasons identified below, Applicants submit that the Examiner has failed to establish anticipation of at least independent claims 1, 14, 27 and 28 by Firoiu.

Each of independent claims 1, 14, 27 and 28 includes a limitation that generally specifies the selection of a given one of a plurality of packets for transmission based at least in part on a comparison of weighted versions of the computed delay measures, such that the selected packet is the packet having the largest weighted delay associated therewith.

Also, it is important to note that the claims require that the delay measures are computed for a plurality of packets including at least one packet from each of a plurality of queues. Thus, the “computed delay measures” recited in the claims refer to delay measures computed for packets from different queues.

An illustrative embodiment of the claimed invention as described in the specification at page 4, line 12 to page 5, line 28, provides an improved scheduling policy referred to as Largest Weighted Delay First (LWDF). One important advantage associated with this embodiment is that the LWDF scheduling policy is “invariant to changes in stochastic input flow models” (Specification, page 5, lines 26-28).

The Examiner in formulating the §102(e) rejection argues that “the EDF is equivalent as weighted versions of the computed delay and the largest weighted delay associated [sic] as recited in the claims” (Office Action, page 2, last paragraph). Applicants respectfully disagree.

The Firoiu reference fails to teach or suggest at least the above-noted limitations of claims 1, 14, 27 and 28, and thus also fails to provide the associated advantages, such as invariability to changes in stochastic input flow models. The Firoiu reference, in contrast to the claimed invention, discloses an Early Deadline First (EDF) scheduling policy that is applied to packets of a given queue. The EDF scheduling policy is described as follows in column 8, lines 24-36 of Firoiu, with emphasis supplied:

The scheduling policy of a scheduler determines the order in which the scheduler selects the queued packets for transmission. In the described embodiment, the schedulers in

the routers in network 100 schedule the packets for transmission according to an Early Deadline First (EDF) scheduling policy. To implement the EDF scheduling policy, a scheduler assigns a deadline to each packet that equals the sum of the arrival time, the router delay, and the longest permitted queuing delay for that packet. The scheduler then schedules the packet in the queue that has the earliest deadline to be transmitted first.

As is apparent from the above-quoted passage, the Firoiu EDF scheduling policy simply assigns a deadline to each packet in a given queue, and then selects the packet with the earliest deadline. This type of scheduling policy is clearly distinct from that of the claimed invention which, as noted above, calls for selecting a packet for transmission based at least in part on a comparison of weighted versions of delay measures computed for packets from different queues, such that the selected packet is the packet having the largest weighted delay associated therewith.

Moreover, as mentioned above, Firoiu teaches that the EDF scheduling policy is applied to select from among packets within only a single queue. As was explained previously, the “computed delay measures” recited in the claims are computed for packets from different queues. This is apparent from the claim language which calls for computing delay measures for a plurality of packets including at least one packet from each of a plurality of queues. The EDF scheduling policy in Firoiu cannot be said to make selections based on delay measures computed for packets from different queues. This is apparent from, for example, the following statement from column 7, lines 60-63 of Firoiu, with emphasis supplied:

Packet scheduling CPU 465 schedules packets queued in the queue according to an Early Deadline First (EDF) scheduling policy for transmission by the output driver.

Thus, the EDF policy is apparently disclosed as being applied separately to each queue. There is simply no selection based on delay measures computed for packets from different queues as in the claimed invention.

In view of the foregoing, Applicants respectfully submit that there is no teaching or suggestion whatsoever in Firoiu of the particular limitations of claims 1, 14, 27 and 28 relating to

computing delay measures for a plurality of packets including at least one packet from each of a plurality of queues, and selecting a given one of the plurality of packets for transmission based at least in part on a comparison of weighted versions of the computed delay measures, such that the selected packet is the packet having the largest weighted delay associated therewith.

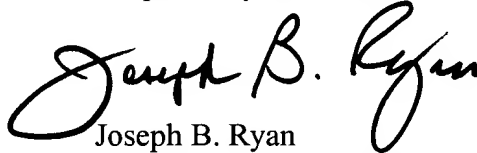
In fact, the Firoiu reference, by teaching to utilize an entirely different scheduling technique, namely EDF scheduling applied separately to each queue, actively teaches away from the present invention as claimed.

Since Firoiu fails to teach or suggest each and every element of claims 1, 14, 27 and 28, as would be required for an appropriate anticipation rejection, these claims are not anticipated by Firoiu, and the §102(e) rejection should be withdrawn.

Dependent claims 2, 3, 15 and 16 are believed allowable at least by virtue of their dependence from their respective independent claims.

Accordingly, Applicants believe that claims 1-28 are in condition for allowance, and respectfully request withdrawal of the §102(e) rejection.

Respectfully submitted,

A handwritten signature in black ink that reads "Joseph B. Ryan". The signature is fluid and cursive, with the first name "Joseph" being more prominent and the last name "Ryan" following in a similar style.

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